



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,209	01/14/2004	Samer Kabbani	COHU1180	4869

25548 7590 03/24/2006

DLA PIPER RUDNICK GRAY CARY US, LLP
4365 EXECUTIVE DRIVE, SUITE 1100
SAN DIEGO, CA 92121-2133

EXAMINER

KARLSEN, ERNEST F

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,209

Applicant(s)

KABBANI ET AL.

Examiner

Ernest F. Karlsen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 12-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11 and 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: * |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2829

Claims 1-5 and 12-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions and/or species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on April 18, 2005.

Claims 6-11 and 27-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The structure of the apparatus of Figures 3-7 is not clear. The use of the term monolithic is not clear. Is the whole device of Figure 4 supposed to be monolithic or is it just the part labeled 104? Are elements 108 part of the monolithic structure?

Part 158 of Figure 3 does not seem to be part of element 104 in Figure 3. Is the part of part 104 on which part 158 is located a surface that is part of part 104? As shown in Figure 3, part 158 seems to extend above the top surface of part 104 where part 106 would presumably attach. It is not clear how a seal would be formed between parts 106 and 104. Figure 3 is supposed to be an exploded view. It appears that part 106 might be exploded and flipped 180 degrees. The bracket with no number in the middle of part 106 appears to be on the wrong side of part 106. It appears that part 106 would be separated from part 104 by part 158 and the bracket with no number on part 106 would just make matters worse. The structure of part 158 to provide the desired function is not understood. If part 158 is on a solid surface of part 104 how does the fluid traverse path

Art Unit: 2829

124 of Figure 5? The operation and structure of the claimed heat sink is not understood.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-11 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeHaven et al in view of Burward-Hoy. With regard to claim 6, DeHaven et al show, in Figure 7, a plurality of active temperature control devices (the four units as described in columns 9 and 10) wherein the temperature, hot and cold, is controlled as explained with regard to Figures 5, 6 and 7. The apparatus has a thermal transfer surface 12, Figure 6, and the temperature is controlled for each device under test. DeHaven et al do not show a fluid cooled heat sink thermally coupled to a thermal transfer surface. Burward-Hoy show a heat exchanger wherein flow rate of a fluid is controlled to control temperature in the heat exchanger and the heat exchanger is coupled to a thermal transfer surface as shown in Figures 3 and 4A. It would have been obvious to one of ordinary skill in the art at the time of the invention to have adapted the heat exchange technique of Burward-Hoy to the apparatus of DeHaven et al because one skilled in the art would realize that such would result in more accurate and faster control of temperature. With regard to claims 7, 8, 9 and 11, the added limitations are

Art Unit: 2829

considered inherent in the apparatus resulting from the combination of DeHaven et al and Burward-Hoy. With regard to claim 10, Burward-Hoy describes a resistive reactive heater at column 3, lines 17 plus and Figure 13 shows an inductive heater. With regard to claims 27-30 the combination of DeHaven et al and Burward-Hoy has counter flow and at least part of the heat exchanger is monolithic.

DeHaven et al is directed to testing wafers. The abstract of DeHaven et al indicates that one or plural temperature controls may be applied per wafer. In Figure 7, a box 90, 92 contains four of the devices of Figure 6. Presumably, in DeHaven et al's preferred embodiment there would be 16 temperature controls for the setup of Figure 7. Where there is only one control per wafer there would be four temperature controls for the set up of Figure 7. The size of the apparatus of the device of Burward-Hoy is irrelevant.

Any inquiry concerning this communication should be directed to Ernest F. Karlsen at telephone number 571-272-1961.

Ernest F. Karlsen

March 20, 2006


ERNEST KARLSEN
PRIMARY EXAMINER